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# Technical, Management and Cost (TMC) Requirements

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January 25, 2007

Changes made since the meeting are highlighted in this color



# Criteria and Guidelines for the Phase A Concept Study

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- The DRAFT Criteria and Guidelines for the Phase A Concept Study is item 24 in the Mars Scout Library (MSL).
  - <http://mars-scout.larc.nasa.gov/marslib.html>
- The document contains instructions for the Concept Study Report for full Mission Investigations.
- Please send any questions or comments on Guidelines to Acquisition Manager with copies to PS and **PE**.
- A final version will be released as soon as NPG 7120.5D is signed.



# Criteria and Guidelines for the the Phase A Concept Study

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- The Criteria and Guidelines for the Phase A Study defines all Concept Study Report (CSR) preparation and submission requirements;
- Format of CSR specified in sections A through K with page limits
- CD containing PDF version of CSR and specified cost tables.
- CD may include up to four simple simulations (< 3 mins. each), e.g. Quick Time Movies, that are referenced and described in the CSR.
- The CSR is to be a self-contained document. Do not reference original proposal.
- Appendices other than those specified are not allowed.



# Technical, Management, and Cost (TMC) Requirements

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- The Criteria and Guidelines for the Phase A Concept Study, contain instructions on required Technical, Management and Cost information in section F, G, J and K.
  - Page limits for Technical Approach and Management Plan have been expanded to allow a more detailed description of implementation plans.
  - Cost Section J - Format of information specified but no page limit
  - Appendices on specific topics - no page limit, foldouts may be used.
- In addition to the instructions in the Guidelines document, note: All program constraints, guidelines, definitions, and requirements given in the AO are still valid for the CSR except as noted herein.



# Technical, Management, and Cost (TMC) Requirements

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- Technical Approach - Section F
  - If proposed, the technical approach of any SEO or TDO should also be addressed in this section.
- Management Approach - Section G
  - Reference to NPR 7120.5C in this section and other places. Note that a new version of this document is expected to be released soon. A draft version of the new document is at [http://nodis-dms.gsfc.nasa.gov/dms/draft.cfm?id=N\\_PR\\_7120\\_005D](http://nodis-dms.gsfc.nasa.gov/dms/draft.cfm?id=N_PR_7120_005D)



# Cost Plan

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- Cost Plan for Mission Phases A through E
- Cost included in the MEP cost - within the cost cap
  - All costs unless specifically excluded.
  - Full cost (including CM&O) for NASA civil servants and facilities - same rules as step one costs.
  - Launch Service cost.
  - Any SEO, TDO, or SC cost.
- Costs excluded from the MEP cost - outside the cost cap
  - Contributed costs.



## Cost Caps and Constraints

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- Cost Caps have not changed
  - Mission cost cap \$475M (FY2006)
- Contribution limits have not changed
  - The sum of contributions of any kind to the entirety of the flight hardware for a Mars Scout Mission investigation may not exceed one third (1/3) of the MEP cost in U.S. dollars.
- Proposal cost change limit for CSR
  - During the Concept Study, the NASA MEP Cost shall not increase to exceed the total cost cap of \$475M (FY2006).



## Appendices - Section K - LOC

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- 1. Letters of Commitment (LOC)
  - Contributed items: dollar value of contributions must be included in Total Mission Cost.
    - Any organization offering to contribute .... Goods or services, see list of items.
    - Any organization offering to contribute time and/or services of Co-Is including E/PO participants. Letter must include amount of FTE and signature of authorizing official.
  - Any organization or participant named in the proposal that will provide critical hardware, facilities, good, or services, whether contributed or not.
    - The letter must include an acknowledgement of the work to be performed, a commitment to perform the work as proposed and for the cost proposed, and the signature of an authorizing official of the organization.
    - The dollar value of the contract or subcontract that is expected to be funded through NASA if the proposal is selected must be included in the MEP Cost.





## Appendices - Section K - LOC (continued)

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1. NASA or Government providers for services and/or facilities offered in the AO for which resources are limited.
  - This includes the JPL Deep Space Network (DSN) office, Multimission Ground Systems and Services (MGSS) office, and others as applicable. The letter must include an acknowledgement of both the quantity and timing of resources required for the proposed effort, as well as the estimated cost of these resources and the signature of an authorizing official of the organization. The cost of the services and/or facilities must be included in the MEP Cost.
  - See NASA's Mission Operations and Communications Services document in the MSL.
    - DSN/AMMOS services/tools letter of commitment or a preliminary Detailed Mission Requirements (DMR) document.
    - SN - Project Service Level Agreement (PSLA).



## Appendices - Section K

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### 2. Subcontracting Plan

### 3. Relevant Experience and Past Performance

- Proposals must include a discussion of *relevant* experience and past performance by the major team partners in meeting the requirements of projects *similar* to the subject of the CSR.
- ... must include a description of each project; its relevance to the subject of the CSR; the proposed performance and the actual performance; the planned delivery schedule of data to the PDS and the actual delivery schedule of data to the PDS, the proposed cost and actual cost; the proposed schedule and actual schedule; an explanation of any differences between proposed performance, cost and schedule and what was actually achieved; and points of contact for the past project's customer.
- If the customer ... United States government, then the contract number must be included along with current technical point(s) of contact and phone number(s).
- For projects that are not yet complete, the current projected performance, cost, and schedule must be used in place of actual values.



## Appendices Section K

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### 3. Relevant Experience and Past Performance (continued)

- In addition, NASA may review, the major team partners past performance on other NASA and/or non-NASA projects or contracts that provide insight into those institutions past performance on airborne or space-based instrument development and investigations and associated development processes including engineering processes, management process, operations, data analysis and delivery of data to the PDS or other appropriate data archives. In conducting the evaluation, **NASA reserves the right to use *all* information available.**

### 4. Resumes.

### 5. Statements of Work for each Contract Option.

### 6. Level 1 Requirements.

- Defines science objectives and the Baseline and Performance Floor Science Mission requirements.
  - If selected, Level 1 requirements will become an addendum to the Mars Scout Program Plan.
  - Look at current version of 7120.5 for guidance and examples in MSL.
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## Appendices Section K

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7. Radioactive Heating Units Plan (as applicable).
8. Planetary Protection Approach.
9. Incentive Plans.
10. Compliance with Procurement Requirements by NASA PI (if applicable).
11. Technical Content of any International Agreements.
12. Discussion on Compliance with U.S. Export Laws and Regulations.
13. Communications Link Budget Design Data.
14. Cost and Pricing for Phase B Contract.
15. Additional Cost Data to Assist Validation.
16. Science Change Matrix.
  - Should the Phase A effort result in any science change (including a science implementation change) from that originally proposed, provide the new requirement, the old requirement, the rationale for the change, and the section/paragraph where the change occurs in the CSR.



## Appendices Section K

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### 17. Data Management Approach.

- **Proposers must discuss all plans (schedules, costs, and deliverables) and their approach and commitment to delivering project data to the appropriate NASA data archives** and indicate such in the plans and schedules for Phase B. In addition, **this discussion must provide assurance that that all activities (womb to tomb) have been considered and included with appropriate resources separately allocated and budgeted.** To ensure PDS compatibility, the Proposer's Archive Guide, available at [`<http://pds.nasa.gov/documents/>`http://pds.nasa.gov/documents/](http://pds.nasa.gov/documents/), should be used as a guideline. Close coordination with a Project's designated Lead Node is necessary during development of the Data Management Plan to ensure that appropriate PDS formats and standards are adhered to.



## Appendices - Section K

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18. Sample Curation Plan (N/A)

19. Project Plan Approach

20. Orbital Debris Analysis

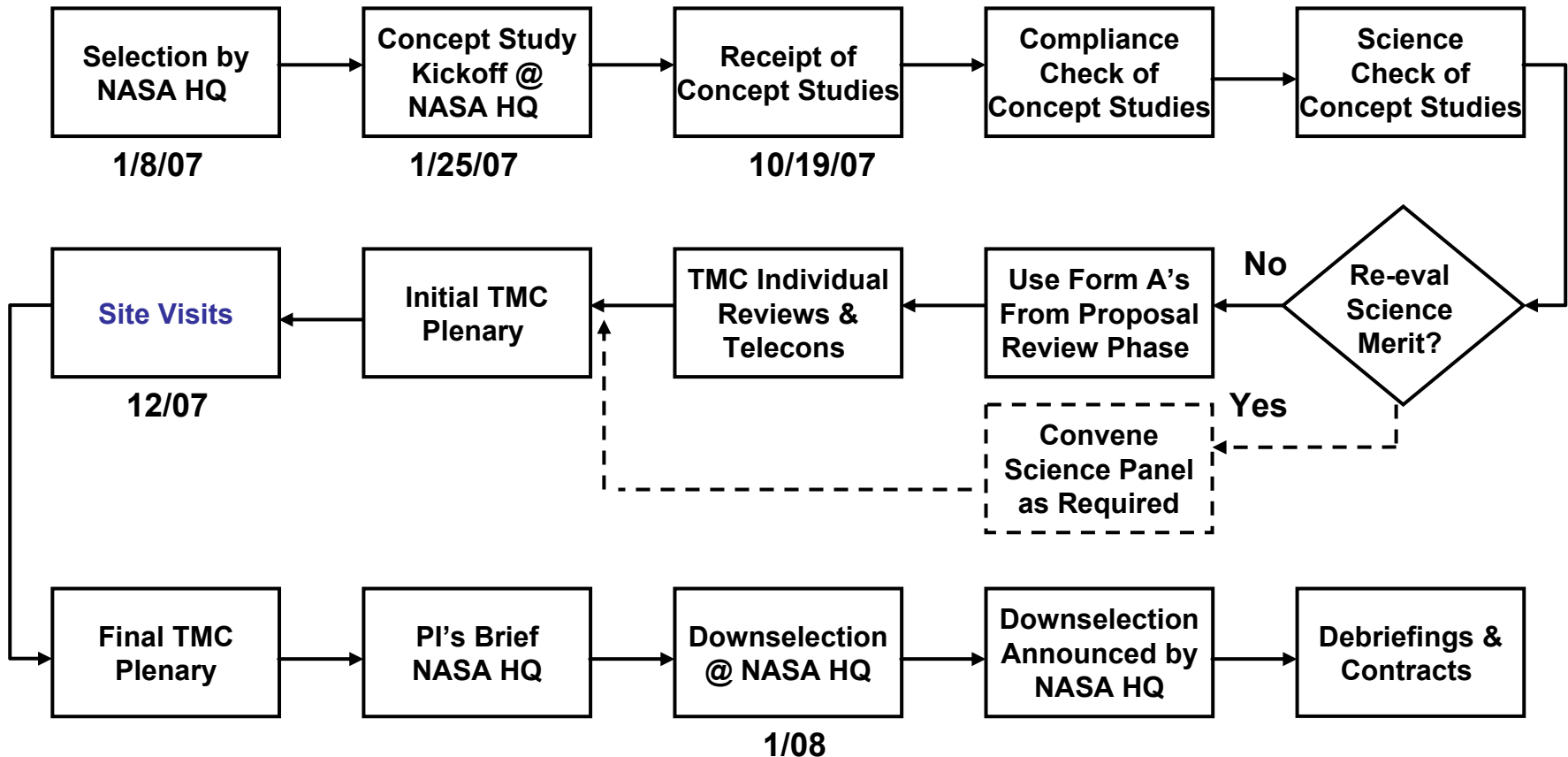
- **Discuss whether this is applicable to the proposal and if so discuss how the orbital debris requirements will be addressed.** If applicable, detailed orbital debris analysis will be required for PDR and CDR, per NPD 8710.3B, NASA Policy for Limiting Orbital Debris Generation. This document can be found in the NODIS and is linked from the MSL.

21. References List (Optional)

22. Abbreviations/Acronyms List.



# Mars Scout CSR Evaluation Flow





## Site Visits

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- Site Visits with Oral Briefings will be used to clarify implementation details and commitments and show additional work done since the CSR.
- Site Visits may start as early as December 2007 for Mission Investigations at location sites to be determined by the PI/Proposal Team and coordinated with the Mars Scout TMC Chair, Carlos Liceaga by email at [Carlos.A.Liceaga@nasa.gov](mailto:Carlos.A.Liceaga@nasa.gov) or by telephone at 757-864-6191
- Briefings at each Site Visit will be limited to 8 hours with 1 additional hour for a site tour. (Suggest a schedule of 8:00 a.m. - 6:00 p.m. including 1 hour lunch).
- All Site Visit presentations/briefings should be in a plenary session with all TMC Evaluation Team members attending - no splinter sessions.
- Written questions and/or requests for information will be submitted to the PI/Proposal Team approximately 7 days before the Site Visit. Both teams will have the same lead time.
- Only the information presented during the Site Visit and contained in the CSR will be considered during the evaluation.